V. THE COMMISSION SHOULD PROVIDE GUIDANCE REGARDING STATE AND LOCAL BARRIERS TO ENTRY SUBJECT TO PREEMPTION UNDER SECTION 253 OF THE ACT

The Act authorizes the Commission to preempt State and local rules that "prohibit or have the effect of prohibiting the ability of any entity to provide any interstate or intrastate telecommunications service."[228/] Consistent with the goal of this proceeding to remove barriers and economic impediments, the Commission can and should rule now that burdensome certification proceedings and geographic service requirements constitute effective barriers to entry. Providing this guidance now would reduce regulatory costs and minimize case-by-case litigation.

A. Burdensome Certification Proceedings

Whether, and to what extent, entry requirements should be imposed on new entrants is not merely an academic question. The certification process in many States can be extremely drawn out and expensive.[229/] In the case of Connecticut, the process for obtaining a certificate of public convenience and necessity ("CPCN") can last many months and require the devotion of hundreds of work-hours, days of hearings, filing of testimony and briefs, and responses to

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[228/] See generally id. at § 253.

[229/] See, e.g., Ohio Pub. Util. Comm'n, Interim Minimum Filing Requirements For Applicants Seeking to Provide Local Exchange Service in Ohio (April 23, 1996); Conn. Dept. Pub. Util. Control, DPUC Review of Procedures Regarding the Certification of Telecommunications Companies and of Procedures Regarding Requests by Certified Telecommunications Companies to Expand Authority Granted in Certificates of Public Convenience and Necessity, Decision (March 15, 1995).

interrogatories.[230] The present process is daunting and resource draining for even the best financed potential competitor and likely discourages others to the advantage of the incumbent and the disadvantage of Connecticut's telecommunications consumers. These types of entry requirements are unnecessary and contrary to the Act.

A certification proceeding should be concluded within a reasonably limited period of time, or be deemed an entry barrier. Issues should be limited to basic financial, technical, and legal qualifications. In a competitive marketplace, there is little need to inquire into marketing plans or "customer care" proposals. A carrier that markets ineffectually or fails to provide the requisite customer service will soon find itself out of business. Likewise, applications for certification should be a conducted as streamlined paper proceedings to avoid the inevitable and unnecessary dilatory tactics associated with discovery and oral argument.

B. Geographic Service Requirements

New entrants should be permitted to obtain Statewide authority to provide services and be free to self-designate the geographic service area they will serve. Any law or regulation imposing mandatory service areas or build-out requirements on new entrants should be deemed a barrier to entry and inconsistent with the 1996 Act.

In particular, facilities-based CLECs should not be required to serve beyond the reach of their facilities. Requiring these CLECs to resell ILEC services could significantly change the economics of entry for the CLEC, and thereby undermine facilities-based competition. Such a

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[230] Even at the conclusion of such a rigorous review, and many months after the close of the evidentiary record, applicants still are without authority to provide service. See Docket No. 95-07-19, Application of Cablevision Lightpath - CT, Inc. for a Certificate of Public Convenience and Necessity (In this case, the application was complete on December 26, 1995, the evidentiary record was closed on February 8, 1996 and as of this date the Company does not have authority).

requirement would also diminish the ability of a facilities-based CLEC to distinguish its service offerings in the marketplace, to the extent that the CLEC can only provide those offerings economically using its own facilities.

Imposing a service area on a CLEC also interferes with competition by preventing the competitor from using calling areas to distinguish themselves from ILECs or other CLECs. In a competitive marketplace, each carrier should be able to exploit its particular advantages and seek customers through aggressive marketing strategies and dynamic product alternatives to the traditional standard local service offerings available to consumers today. The imposition of mandatory geographic service areas that bear little or no relationship to a new entrant's business plan undermines the achievement of these goals.

Geographic service requirements are not justified based on unsubstantial fears of cream skimming. Such boundaries serve only to impose the ILECs rate plan structure on new entrants, thereby thwarting the introduction of innovative product offerings and pricing arrangements that the Act seeks to promote. Cable operators or affiliates utilizing cable system networks to provide telecommunications services pose no cream-skimming threat, since cable operators are required to build out their cable system to provide service to the entire franchise service area.[231] Any theoretical threats of cream skimming are outweighed by the public interest benefits received from new entrants' ability to provide competitive local exchange service free from such geographic service requirements.[232]

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[231] 47 U.S.C. § 541(a).

[232] It would not be unreasonable, however, to require a new entrant to provide service to any requesting customer passed by its facilities.

Connecticut and Texas both have adopted geographic service requirements that serve as barriers to entry. The Connecticut DPUC requires any applicant seeking authority to provide telecommunications services in Connecticut to serve all customers in DPUC-defined market areas within three years of receiving authority, regardless of the new entrant's interest in or ability to serve an entire DPUC-defined area.[233] Under the DPUC's requirements, there are eleven designated geographic service areas in the State. Eight are identified by the DPUC as "more economically attractive . . . (i.e., perceived higher profit potential)" than the other three areas. For every "lucrative area" in which a new entrant seeks to provide service, it is required to serve customers in one of the three less lucrative areas. Under Connecticut's service requirements, new entrants are required to devote significant resources to resell services to customers in areas where the new entrant has no facilities or intentions of deploying facilities.

Similarly, Texas has enacted legislation that requires new entrants seeking facilities-based authority to provide local exchange services to serve an area or areas that are contiguous and reasonably compact, and have a coverage area of at least 27 square miles.[234] The applicant also is required to submit a build-out plan demonstrating how the applicant will deploy its facilities throughout the service area over a six-year period.[235]

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[233] See DPUC Review of Procedures Regarding the Certification of Telecommunications Companies and of Procedures Regarding Requests by Certified Telecommunications Companies to Expand Authority Granted in Certificates of Public Convenience and Necessity, Decision, at 26-27 (March 15, 1995).

[234] See Tex. Rev. Civ. Stat Art. 1446c-0, § 3.2531(g) (Vernon Supp. 1996).

[235] The build-out plan must meet the following conditions: ten percent of the area to be served must be served with facilities other than the facilities of the incumbent LEC by the end of the first year; fifty percent of the area to be served must be served with facilities other than the facilities of the incumbent LEC by the end of the third year; and the entire area to be served must be served with facilities other (continued...)

The burden and expense of the build-out requirement deters potential new entrants from entering the marketplace. It may be more economic for a competitor to construct a partial network and combine those facilities with the resale of the incumbent's capacity to offer service, but the build-out requirement essentially forecloses this option. New entrants that are willing to undertake the construction of separate networks may find themselves saddled with unrecoverable costs if the market fails to develop sufficiently to justify their investment in facilities.

The build-out requirement falls most heavily on the first competitor to receive a certificate. Six years from the grant of an application for Certificate of Authority for a particular area or areas or when the new applicant has completed its build-out plan, the Commission may waive the build-out requirements for additional applicants.[236/] The potential disparity in regulatory treatment for being the first to apply discourages entry.[237/]

[235/] (...continued)
than the facilities of the incumbent LEC by the end of the sixth year. After six years, non-incumbents must rely wholly upon other competitors' networks or deploy their own facilities. Applicants are prohibited from using commercial mobile radio services to meet the build-out requirements, but may use PCS wireless technology. Id. at § 3.2531(d).

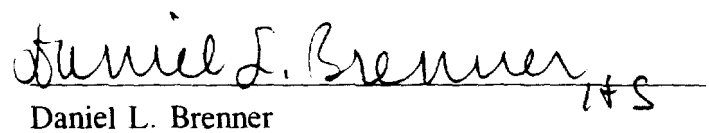
[236/] Id. at § 3.2531(i).

[237/] Not all States have sought to restrict CLECs in this way. In New York, new entrants can obtain statewide authority without any mandatory geographic service obligations, and interconnection to the incumbent's network is made available on a LATA-wide basis. Under this framework, telecommunications providers can design service offerings around their facilities and are free from the incumbent's rate structure.

CONCLUSION

For the reasons set forth above, and as described more fully there, the Commission should adopt rules that fulfill the mandate of the Telecommunications Act of 1996 to establish a pro-competitive, deregulatory national policy framework for telecommunications.

Respectfully submitted,
NATIONAL CABLE TELEVISION ASSOCIATION, INC.



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May 16, 1996

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BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C.

In the Matter of Implementation of the Local Competition Provisions of the Telecommunications Act of 1996	}	CC Docket No. 96-98

Declaration of Bruce M. Owen

Qualifications

I am an economist and president of Economists Incorporated, an economic consulting firm located at 1200 New Hampshire Ave., N.W., Washington, D.C. 20036. I am also a visiting professor of economics at Stanford University's Washington, D.C. campus. I hold a Ph.D. in economics from Stanford University (1970) and a B.A. in economics from Williams College (1965). My fields of specialization are applied microeconomics and industrial organization, especially antitrust economics and regulation of industry. I have published a number of books and articles in these fields, including "*United States v. AT&T*: The Economic Issues" (with R. Noll, in J. Kwoka and L. White, eds., *The Antitrust Revolution*, Scott, Foresman, 2nd ed., 1994), *Video Economics* (with S. Wildman, Harvard University Press, 1992), and *The Regulation Game* (with R. Braeutigam, Ballinger,

1978). I have taught economics as a full-time member of the faculties of Duke University and Stanford University. From 1979 to 1981 I was the chief economist of the Antitrust Division of the United States Department of Justice. During 1971-1972 I was the chief economist of the White House Office of Telecommunications Policy. I have testified in a number of antitrust and regulatory proceedings, including ones relating to local exchange, interexchange, and cellular telephony. A copy of my curriculum vitæ has been submitted previously to the Commission in companion Docket CC95-185.

Introduction and Summary

I have been asked by counsel for NCTA to comment on the resale and proxy rate issues raised by the Commission in this proceeding. In particular, I offer comments on Section II. B. 3 (¶¶172-188), section C. 1 (¶¶196-197), and ¶¶134-143 of the Notice. These sections of the Notice deal with the resale obligations of incumbent local exchange carriers (ILECs) and competitive local exchange carriers (CLECs), respectively. The statute itself distinguishes between the appropriate regulatory treatment of ILECs and CLECS. These sections of the Notice also deal with the implementation of the statutory "avoided cost" pricing standard for wholesale discounts, and with the use of "proxies" pending the establishment of cost-based rates.

Regulation of CLECs

Resale obligations for incumbent LECs play a role in Congress's scheme to accelerate the development of local competition in telecommunications. As with unbundling and interconnection obligations, the statutory scheme recognizes that ILECs possess a "bottleneck" monopoly or essential facility, to which new entrants

must have access. Wholesale purchase and resale of local services is thus one way in which a competing carrier can more readily enter the market while its own facilities are under construction.

As the Commission acknowledges, regulation is imperfect, and its imposition justified solely in cases where the competitive market system has broken down. Surely the obligations imposed on ILECs under the new law are entirely appropriate by that standard. However, the imposition of regulatory constraints on new entrants and other firms that lack market power defeats the economic policy goal of the 1996 law. The Commission should seek to minimize the imposition of constraints on competitive activity unless or until some market failure is noted. This treatment applies both to resale and other obligations and is consistent with the statutory distinction between ILECs and CLECs.

ILECs and the avoided cost standard for resale discounts

The statute's "avoided cost" standard is designed to approximate an economically efficient outcome for wholesale discounts. Assuming the underlying price is efficient, a wholesale discount is efficient if it reflects the incremental cost savings from selling wholesale. Thus, "avoided cost" and incremental cost are, or ought to be, the same, if measured for the same services and in the same run. However, it is clear from the statute's enumeration of specific illustrative elements of avoided costs that Congress intended a relatively short-run approach to resale discounts. This is consistent with the recommendation of a NARUC committee, which recently concluded that avoided cost should be defined as "a measure of the short run incremental cost savings that result from not providing a service or not serving a customer." (NARUC Staff Subcommittee on Communications, "Local Competition Work Group Summary Report," Feb-

ruary 1996, at 37. Thus, avoided cost does not and should not include overhead or common costs that might be included in *long*-run incremental cost at high levels of aggregation.

An avoided cost standard will not produce an efficient result if the underlying price is not efficient. Thus, for example, an avoided cost test applied to a discount for resale of a service priced at monopoly levels will simply produce a monopoly wholesale price. Similarly, if the underlying service is priced below cost, an avoided cost test for the discount will produce an inefficiently low wholesale price. Thus, if residential exchange service is priced too low, the wholesale price to resellers, based on avoided cost, also will be too low. The problem in these cases is not with the avoided cost test but with the underlying price.

The Commission cannot safely ignore the issue of economic efficiency. If wholesale prices for resale are not set properly, in relation to the prices established for network elements and interconnection, suppliers, resellers, and customers will simply arbitrage from the higher price to the lower price. Even if entities eligible for wholesale discounts are ineligible to purchase network elements or "transport and termination" services, and vice versa, and even if wholesale discounts apply only to the entire bundle of local services and not to its components, there is no way to prevent customers themselves from choosing the lowest-cost offering. Thus, the prices and price standards established for these services must be consistent; price discrimination is incompatible with the competitive regime that Congress has mandated.

A California proceeding provides one example of some of the pitfalls of measuring avoided costs. The CPUC determined on the basis of partly-flawed methods that the costs avoided by wholesale sales was 17 percent for Pacific Telephone's business services. The underlying

study and the CPUC's errors were all such as to overestimate the discount; the correct discount is thus smaller.

Establishment of proxy rates and discounts

The establishment of proxy prices (or, where appropriate, bill-and-keep arrangements) is the best way to allow competition to begin while detailed TSLRIC and avoided cost studies are undertaken and litigated. This applies equally to the pricing of interconnection, transport, termination, network elements, and resale discounts. Negotiated agreements between the incumbent LECs and the new entrants will depend on the cooperation of the incumbent LECs, which on account of their monopoly power have the incentive and opportunity to delay the agreement and to ensure that prices set in the agreement are excessive. An alternative, establishing an escrow fund which the competing LECs pay into, with a settlement after the regulator finally sets the rates, is also likely to be ineffective. Escrowed payments expose the competing LECs to a substantial degree of risk, because they require each CLEC to sell a service before it knows the cost of an important input.

It is extremely unlikely that any proxy price chosen by the Commission will accurately reflect the correct underlying cost measure. An error in one direction or another is unavoidable. Such an error of course imposes efficiency penalties. Thus, a proxy for TSLRIC or avoided cost that is too high will retard the development of competition, but the absence of a proxy would have the same effect. Furthermore, because incumbent and competing LECs always can agree to rates below a proxy ceiling, proxies can not be worse for competition than reliance on negotiated agreements. A proxy that is too low would impose costs on the incumbent LECs. Such a proxy, however, would also give those LECs, with their vast advantage in access to in-

formation, an incentive to develop data justifying a modified price as quickly as possible. In contrast, with negotiated agreements and with escrow arrangements, the incumbent LEC has an incentive to delay the regulatory process. Thus, although the establishment of proxies is not ideal, it is better than the alternatives.

Information upon which proxy prices might be based include various state tariff filings, state cost studies, and generic cost studies. It would be unwise to rely on information from CMRS and ONA rates because these are unreliable estimates of TSLRIC. A review of the available evidence suggests that the recent Hatfield Associates study may provide a reasonable basis for the establishment of proxy rates for interconnection, local loops, switching, and elements thereof. Finally, based on the experience in California and Illinois, a wholesale discount proxy for resellers of local exchange service should be no greater than 10 percent.

Competition and Regulation

The Commission should minimize its regulation of CLEC economic decisions in the areas of interconnection and resale

The purpose of promoting competition is to improve consumer welfare by forcing competing sellers to vie for consumers' favor. Competition has long been favored in the United States over monopoly, even regulated monopoly. Although competition is frequently imperfect, its benefits outweigh those conferred by regulation. This is so because successful regulation is dependent on information that either does not exist or exists under the control of the regulated firms.

Regulatory intervention in any market must be premised on some persistent market failure and on a perception that adequate infor-

mation will be available to permit regulators to do better than the failed market. Examples of market failures are externalities, such as pollution, and competition problems, such as monopoly.

In markets that are competitive, in the absence of a palpable market failure, regulatory intervention is as likely as not to prevent firms from reaching an efficient level of production and pricing, and thus to harm consumers. Suppose, for example, that a regulatory commission sought to forbid use of a particular business practice or form that was thought to harm customers. If such a regulation were imposed on a competitive firm, it either would have no effect (because the competitor did not use the practice) or a negative effect, by preventing the competitor from using a practice that enhanced its competitive advantage. Consumers would not be better off. Suppose it were true that the practice in question did injure consumers. In a competitive market the result would be a shift in demand from the firm using the practice to another firm. By definition, in a competitive market consumers have choices. Their ability to exercise choice forces competitors either to perform in accordance with consumer interests, or to expire. Thus, there is no basis for regulatory intervention affecting competitive firms--firms to which customers have good alternatives.

On the other hand, if customers do not have effective alternatives, as when they face a monopolist, there is no assurance that consumer alternatives will constrain inefficient behavior. In that case, regulatory intervention may well be justified, provided the regulators have adequate information. (In principle, of course, it is possible for regulators to make consumers even worse off than under monopoly, particularly when the regulation itself perpetuates the monopoly by creating entry barriers.)

The interconnection and resale obligations imposed on ILECs under the 1996 Telecommunications Act (1996 Act) are entirely appropriate because it is clear not only that the ILECs enjoy market power, but that their power extends to possession of a "bottleneck" or "essential facility" to which competitors require access in order to compete. See Owen, "Determining Optimal Access to Regulated Essential Facilities" 58 Antitrust L. J. 887 (1989).

Essential facility cases are unusual. Only rarely does a firm have such complete control of the means of competition that regulators (or antitrust courts) are justified in restricting the uses to which the firm may put its own property. One reason why such cases are rare is that a more liberal application of the doctrine would inhibit incentives to invest in facilities that are potentially "essential." If a firm may be forced to provide services and access to its competitors when it would prefer not to do so, its incentives to compete will be attenuated, it will invest less, and the result may be higher prices and lower quality service for consumers. Indeed, we generally expect such an outcome except when the monopoly or bottleneck is near-absolute.

In the telecommunications industry, Congress wisely distinguished between ILECs and CLECs. While it makes perfect sense for the time being to impose "essential facility" obligations on the ILECs, it makes no economic sense to impose such obligations on CLECs.

If, for example, a CLEC were to refuse interconnection with another CLEC (except indirectly, through the ILEC), what possible motive could it have except to minimize cost or to avoid interference with its marketing plans? No CLEC is in a position to exercise market power over customers, and thus no customer can be injured by such a decision. Customers of CLECs, by definition, always have at least

one other choice; they cannot be made worse off than they would be as continuing ILEC customers.

It is possible, of course, that a CLEC that decides to deny direct interconnection or to refuse a wholesale discount may be making a mistake. If so, customers have their alternatives, and the market will discipline the mistake. But it is far more likely that the CLEC undertaking such a policy is attempting to produce a package of services, marketing arrangements, and prices that will attract customers and increase its market share. In the former case, a Commission regulation is superfluous. In the latter case, a Commission regulation banning such refusals is harmful to consumers' interests. Of course, because no competitive market is perfect, there is always the possibility that a regulator with perfect information could design an "ideal" form of intervention that would benefit consumers. The trouble is that regulators seldom if ever have the requisite information. For a discussion in the context of interconnection regulations, see Katz, Rosston, and Anspacher, "Interconnecting Interoperable systems: The Regulators' Perspective" FCC OPP, 1995.

For these reasons, Congress minimizes regulation of CLEC economic decisions in the areas of interconnection and resale.

Resale Issues

It would be inappropriate to impose resale restrictions on CLECs, including a mandatory wholesale discount

At ¶197 of the Notice, the Commission asks whether it would be appropriate to limit the restrictions that LECs could place on resale of their services. The Commission opines that, because Congress intended to promote competition, LECs should not be permitted to restrict resale. To the extent that this principle is applied to CLECs,

it is unsound. For the reasons set out above, it would be entirely inappropriate—i.e., anticompetitive—to require CLECs to offer a wholesale discount to resellers, or otherwise to restrict CLEC dealings with resellers. Such restrictions either would be unnecessary (because the forces of competition will call forth the desired behavior in any event) or harmful (because mandating the behavior would require the CLECs to adopt an inefficient distribution system and thus raise costs and so prices to end users).

The motivation for restrictions and constraints on CLEC dealings with resellers apparently is based on concern that CLECs have an incentive to limit the ability of resellers to compete in retail sales. However, there is no evidence at all that exercise of market power by CLECs is a significant problem. At this point, CLECs hardly exist as viable competitive entities. Without evidence of some market failure, there is every reason to believe that, unless their incentives are distorted by government regulations, each CLEC will have a powerful incentive to cause each of the steps involved in providing service—including retail marketing as well as such things as call recordation and billing—to be done in the least-cost manner, whether this involves use of independent resellers or vertical integration or both. Minimization of costs contributes to profits both directly and by enabling the firm to reduce prices and increase sales. Under these circumstances, there is no reason to expect that decisions by CLECs relating to either bundling of services sold to resellers or prices charged to resellers will have an adverse effect on competition or consumer welfare

Regulation to protect resellers of CLEC services is likely to harm consumers. If CLECs know that regulators will protect resellers, they may be unwilling to take steps that would reduce resellers' share of retail sales. Thus, they may prevent their own retail outlets

from competing vigorously with resellers. In this case, regulation would prevent retail distribution from being done by the least-cost providers, to the detriment of end users.

The avoided cost standard for ILEC wholesale discounts

With respect to resale of local services, the 1996 Act mandates a wholesale discount for the ILECs (but not for the CLECs) and specifies the use of "avoided cost" as the standard for the ILEC wholesale discount. This raises a series of issues, addressed in turn below: What does "avoided cost" mean, or what should it mean in this context? If adequate measures of avoided cost are lacking, should the Commission adopt an interim "proxy model" approach? If so, what factors should be considered in establishing a particular proxy number for resale discounts?

Section 251 (c) (4) of the 1996 Act requires that incumbent LECs offer services at "wholesale rates." Section 251 (d) (3) provides that these rates are to be determined "on the basis of retail rates charged to subscribers for the telecommunications service requested, excluding the portion thereof attributable to any marketing, billing, collection, and other costs that *will be avoided* by the local exchange carrier." (Emphasis added).

Congress' use of an avoided cost standard for the establishment of wholesale rates in local telecommunications services represents a significant departure from more traditional utility pricing standards. Avoided costs are not "allocated" or "fully distributed" costs. The significance of an avoided cost standard is that it is the right standard if one is seriously concerned with economic efficiency.

As the Commission notes, the 1996 Act "seeks to develop robust competition, in lieu of economic regulation, in telecommunications

markets." (Notice at ¶1.) The Commission goes on to describe how such competition within the local exchange can be expected to emerge. In its discussion of the network unbundling provisions of the Act, the Commission states, "The ability to purchase, at reasonable, cost-based prices, access only to those network elements a carrier needs allows new entrants to enter the LEC's market gradually, building their own networks over time, and purchasing fewer unbundled elements as their own networks develop." The Commission also concludes that, under the network element plan, "new entrants can purchase access to those elements incumbent LECs can provide most efficiently, and at the same time build their own facilities only where it would be efficient." (Notice at ¶75.)

The Commission is correct to recognize the importance of efficient, *facilities-based* competition. The role of wholesale discounts for bulk purchase of various elements of local service, or for various bundles of elements, or for all the elements put together, may have a significant effect on the development of facilities-based competition. A wholesale discount that is too low may, at worst, limit the growth of non-facilities-based resellers. By contrast, an unduly generous wholesale discount would certainly reduce and might even eliminate potential entrants' incentives to construct long-lived facilities to serve local markets. *Indeed, an excessive resale discount may be equivalent in its effects on facilities-based competition to predatory pricing by the ILEC.* Moreover, to avoid firms' substituting resale for facilities-based competition, the Commission may wish to limit the services that are open to resale.

Absent facilities-based competition, ILEC dominance in local markets will continue indefinitely. ILEC market power is based on monopoly of facilities, and it cannot be undone through resale. While there is a certain very limited sense in which resellers may compete

with the ILEC (for example in the provision of ancillary services), they do not compete in supplying the underlying services over which the ILEC has a monopoly. To illustrate this point, suppose ILECs were "divested" of the right to serve retail customers, and forced to sell entirely through resellers. Clearly, the result would not be any diminution in the market power of the ILEC with respect to local exchange service.

Avoided costs are measured by the difference between the ILEC's overall costs when selling a given quantity of service at retail, and its costs when selling the same quantity of service in bulk to intermediaries for resale. The "service" may be a bundled set of all the elements of local exchange service or various subsets of those elements. By definition, common and overhead costs are not "avoided" when selling through intermediaries. The closely related concept of "incremental cost", in contrast, may include some elements of overhead and common costs. Long run incremental costs are likely to include some costs that would be fixed or overhead costs in a shorter run, but that vary with output in the longer term. Both avoided and incremental costs for *aggregations* of services, or for facilities used to supply multiple services, will of course include the costs common to producing those services in the relevant run, even though the incremental costs of the individual services would exclude these common costs.

The experience of the electric utility industry illustrates the close connection between the concepts of avoided cost and long run incremental cost. The Public Utility Regulatory Policies Act of 1978 (PURPA) required utilities to purchase electric power offered by certain private "qualifying facilities" at a price based on the utilities' "full avoided cost." The Federal Energy Regulatory Commission (FERC) has defined full avoided cost as "the incremental costs to an

electric utility of electric energy, or capacity or both, which, but for the purchase from the qualifying facility, or qualifying facilities, such a utility would generate itself or purchase from another source." This definition, which closely resembles that of TSLRIC, has been the source of great contention at the state commissions which must implement it, and there is little agreement on how to do so, even nearly twenty years after the passage of PURPA. (See Phillips, The Regulation of Public Utilities: Theory and Practice (1993) at 465-468.)

To define avoided costs as a short-run concept, however, establishes a different cost standard for resale discounts than for unbundled elements or for transport and termination, which are priced on the basis of long-run incremental costs. Setting rates based on different cost standards raises the possibility of inefficient substitution among reselling, unbundled elements, and transport and termination. Thus, the use of a short-run measure of avoided costs can only be a transitional policy. Eventually, when the appropriate studies have been done, long run incremental cost should be used.

For reasons illustrated later in the next section, the measurement of avoided cost is inherently uncertain. If undertaken in the traditional manner, with evidentiary proceedings at the state level with respect to each ILEC, it will be many years before avoided-cost-based wholesale discounts are established. Even then, errors are likely because of the inherent difficulties of the measurement process. Therefore, in order to reduce uncertainty and to stimulate investment decisions by all parties that will increase output and reduce prices, it would be useful for the Commission to adopt a "proxy" benchmark for the permissible wholesale discount that would remain in effect during an interim period This is discussed further in the final section of the declaration.

The Use of Proxy Rates

The Commission should prescribe proxy price and discount ceilings

This section responds to ¶¶134-143 of the notice, in which the Commission asks for comments on the desirability of adopting proxy-based ceilings for reasonable rates for interconnection and network elements. The same considerations apply to establishment of a resale discount. The establishing of proxy price ceilings is an important step in opening this industry to competition. Ultimately, rates should be based on Total Service Long Run Incremental Costs (TSLRIC). Waiting to develop detailed cost studies to support rates in all jurisdictions however, will seriously delay the introduction of competition, because such studies are extremely time-consuming and contentious. The Commission need only recall its own generation-long experience with the various cost studies related to the introduction of IXC competition. The Telpak experience is but one example. (See Brock, Telecommunications Policy for the Information Age: From Monopoly to Competition, 1994.) The experience of the states is unlikely to be better, particularly since many lack the resources of the Commission. Although the movement towards increased competition in local telephony has been going on for some time, most states have made little progress toward developing the necessary cost studies to base rates for interconnection and network elements on TSLRIC. See Appendix: Status of Unbundled Loop and Related Tariffs, by State. Thus, waiting for the necessary cost studies would impose a long delay on the introduction of competition. This delay is likely to be particularly prolonged, because the incumbent LECs, who as monopolists possess a large amount of proprietary information that is traditionally used in these studies, would have an incentive to delay the process and thus delay the introduction of competition.

The establishment of proxy prices (or, where appropriate, bill-and-keep arrangements) is the best way to allow competition to begin before having detailed TSLRIC studies available. Relying on negotiated agreements between the incumbent LECs and the new entrants will not be sufficient to ensure the expeditious beginning of competition. The negotiation of those agreements will depend on the cooperation of the incumbent LECs, who have an incentive to delay the agreement and to ensure that prices set in the agreement are high enough to allow them to continue earning supracompetitive returns. An alternative, establishing an escrow fund which the competing LECs pay into, with a settlement after the regulator finally sets the rates, is also unlikely to be sufficient. These arrangements expose the CLECs to a substantial degree of risk, because they would be required to sell a service before they know what the costs of an important input to the service are.

An exact proxy rate is impossible. Some may object that choosing a proxy that is too large or too small relative to the efficient level of prices imposes costs on the industry and potentially on the consuming public. A proxy that is too high will retard the development of competition, but the absence of a proxy would have the same effect. Furthermore, because incumbent and competing LECs always can agree to rates below the ceiling, proxies can not be worse for competition than reliance on negotiated agreements. A proxy that is too low would impose costs on the incumbent LECs. Such a proxy, however, would also give those LECs, with their vast experience in doing cost studies and superior access to proprietary data, an incentive to develop cost data justifying a modified price as quickly as possible. This situation may be contrasted to the situation with negotiated agreements or an escrow arrangement, where the incumbent LEC has an incentive to delay the regulatory process. Thus, al-

though the establishment of proxies is not ideal, it is better than the alternatives.

If the Commission does adopt proxies for the TSLRIC of network elements, interconnection, transport, termination, and access, or for the avoided cost of wholesale sales, several questions arise. First, what should those numbers be? Second, should each number be a maximum, a minimum, or a fixed standard? What the numbers should be is discussed below. Whether the standard should be a maximum or a minimum is best considered in light of the costs to the public of errors. For example, if the number chosen as a proxy for the resale discount corresponding to avoided cost is too high the Commission may delay or deter facilities-based competition and thus preserve the ILEC monopoly indefinitely. If the discount is too low, some amount of useful resale will be deterred. It seems clear that it is the risk of offering too large a discount that poses the greatest threat to the public. Thus, in this case, the number chosen should be a maximum. Assuming that facilities-based CLECs enter the local exchange market by temporarily reselling ILEC services or purchasing ILEC network elements or bundles (or retail service as a unit) while constructing their own facilities, an unduly low wholesale discount for resold services (or an unduly high network element price) will of course impose higher costs on them than otherwise. But these higher costs are temporary in nature, imposed only during the construction period, and may even spur the CLEC to adopt a faster construction schedule. To the extent that facilities-based CLEC entry is deterred by unduly low transitional resale discounts (or high network element/bundle prices), that deterrence is far less injurious to consumers than the permanent blockade created by an unduly large discount (or low element/bundle price).

The same sort of reasoning applies to the proxy pricing of network elements and transport and termination. Proxies should be used to set price *ceilings*. There is no reason to set price floors (Notice at ¶143). The incumbent LECs will have no incentive in the immediate future to set predatory prices for transport and termination and unbundled elements. Nor are such floors needed to prevent confiscatory regulatory action by the states. There is no evidence that such action is likely or that the FCC must constrain state regulators to prevent it. Moreover, setting price floors runs the risk of constraining rates to be above efficient levels, which would defeat the purpose of competition.

In the remainder of this section, I discuss several ways of establishing ceiling rates using proxies. I then summarize all the data on acceptable proxies for transport and termination and network elements that I have been able to find. The data presented here, for the most part, are not based on TSLRIC (or avoided cost) methods applied to a complete set of the necessary information. Nonetheless, the Commission can rely on these data as the best available evidence as a starting point in constructing proxies.

The Commission should reject proxies based on interstate access charges or ONA rates

Interstate access charges are well-known to be above the level justified by costs. One recent paper states "The prices charged for local access and use reflect the economic costs of the local exchange only to a limited extent and reflect the ending points of monopoly pricing and regulation to a much greater extent." (Marcus and Spavins, "The Impact of Technical Change on the Structure of the Local Exchange and the Pricing of Exchange Access: An Interim Assessment," Federal Communications Commission, paper presented at